ORACLE
Linux

Frequently Asked Questions
Oracle Linux

INTRODUCTION

This document answers commonly asked questions about Oracle Linux. If you don't see the information you need, please feel free to connect with us via Twitter, Facebook, or LinkedIn.

What is Oracle Linux?

- Oracle Linux is a highly optimized and secure operating environment for application development and deployment. It delivers leading performance and security on-premises, in the cloud, and at the edge. Oracle Linux is the basis of Oracle Autonomous Linux and is used to run Oracle Cloud Infrastructure. Oracle Linux is 100% application binary compatible with Red Hat Enterprise Linux.
- Unlike many other commercial Linux distributions, Oracle Linux is easy to download and completely free to use, distribute, and update. Oracle Linux is available under the GNU General Public License (GPLv2). Support contracts are available from Oracle.
- Oracle Linux Premier Support subscriptions offer customers access to award-winning Oracle support resources and Linux support specialists, zero-downtime patching with Ksplice, cloud native tools such as container runtimes and Kubernetes, KVM virtualization and virtualization manager, DTrace, clustering tools, Oracle Linux Automation Manager and Automation Engine, Oracle Linux Manager, and lifetime support.
- Oracle Linux is supported on x86 (32 bit), x86-64 (64 bit), and aarch64 (64 bit) hardware in the cloud, on-premises, or at the edge. Independent Software Vendors (ISV) and Independent Hardware Vendors (IHV) work closely with Oracle to help ensure their offerings are up to date, tested, certified, and supported with Oracle Linux.

What is the Unbreakable Enterprise Kernel (UEK) for Oracle Linux?

- The Unbreakable Enterprise Kernel (UEK) is a Linux kernel built by Oracle and supported through Oracle Linux support. Its focus is performance, stability, and minimal backports by tracking the mainline source code as closely as is practical.
- Oracle Linux with UEK powers Oracle Cloud Infrastructure and Oracle Engineered Systems. UEK delivers the latest Linux operating system innovations and business-critical performance and security optimizations for cloud and on-premises deployment, while providing binary compatibility with applications certified to run on Red Hat Enterprise Linux (RHEL).
- UEK releases support a wide range of hardware and devices. In close cooperation with Oracle partners, UEK updates deliver support for the latest hardware features and driver updates for 64-bit Intel and AMD (x86-64) and 64-bit Arm (aarch64) systems.
- UEK source is available on GitHub.

What is Oracle Ksplice zero-downtime live patching?

- Oracle Ksplice performs zero-downtime patching for the Linux operating system (OS) kernels, hypervisors, and critical user space libraries while the OS is running on-premises or in the cloud. An Oracle Linux Premier Support subscription offers this advanced capability, making it possible to apply critical OS security patches as soon as they are available, and without business disruptions associated with forced reboots.

- Oracle Ksplice also includes [Known Exploit Detection](#), which lays down tripwires for select privilege escalation vulnerabilities and can generate a notification and block the escalation attempt.
- Rolling back Ksplice patches is easy and done without downtime, while other Linux live patching technology may require a reboot to revert live patches.
- Oracle Ksplice supports Oracle Linux with the Unbreakable Enterprise Kernel or the Red Hat compatible kernel. Ksplice also supports additional [Linux kernels](#) including Red Hat Enterprise Linux, CentOS Linux, and Ubuntu.
- To explore and experience the benefits of Oracle Ksplice zero-downtime patching:
    - [Try it for free for 30 days](#)
    - Read the tutorial with hands-on lab [Using Oracle Ksplice in Oracle Linux,](#) and watch [Oracle Ksplice videos](#).
- To learn more about Oracle Ksplice, read:
    - [Ksplice Known Exploit Detection for DirtyPipe, Cgroup, fsconfig and more…](#)
    - [Learn how Oracle Ksplice helps secure critical Linux user space libraries](#)
    - [Find out what you're missing with Ksplice Inspector](#)
    - [Ten years of Oracle Ksplice](#)

How does Oracle Linux provide a reliable, secure open source platform for the enterprise?

- As a leader in database (Oracle and MySQL), enterprise operating systems (Oracle Linux), and a premier cloud provider (Oracle Cloud Infrastructure), security is at the core of everything we do. Oracle has decades of experience securing data and applications in the cloud and on-premises with Oracle's security-first approach. Oracle considers itself the steward of our customers' data and strives to be a trusted advisor for customers seeking the best practices to protect their data.
- Customers rely on Linux to run their infrastructure where security is crucial. We invest in proactive security measures to reduce customers' security risk. Oracle Linux delivers options that help ensure administrators have the features and tools they need to deploy their workloads securely using best-in-class solutions and established best practices.
- Oracle is a member of the industry's Linux pre-embargo security response team, working with others on industry-wide security issues, enabling secure hardware technologies, addressing and removing security issues proactively, and delivering innovative open source technologies such as SELinux, multiprocess QEMU, etc. [FIPS validation and Common Criteria (CC) certification](#) are another demonstration of Oracle's commitment to security.
- We perform routine auditing, have an internal ethical hacking team, incorporate [fuzzing tools](#) into our internal development workflow, and we run multiple static analysis tools (parfait, etc.) as a normal part of the software build process.
- In addition to defensive security, we also believe strongly that customers can take proactive steps to improve their security. Traditionally, security bugs are fixed by "fixing the bug"—for example, adding bounds check to a potential buffer overrun. If an attacker later tries to exploit that vulnerability, the kernel will deny the buffer overrun, but there will be no indication that someone tried to read past the end of a buffer—unless Ksplice Known Exploit Detection is enabled. When Oracle Linux systems are patched with Ksplice, not only is the OS security vulnerability closed, but tripwires are laid down for selected privilege escalation vulnerabilities. This means that if an attacker attempts to exploit a vulnerability that has been patched, Ksplice sends an alert to administrators, allowing them to stay ahead of potential security threats and quickly respond to attempts to exploit known vulnerabilities.

What makes Oracle Linux a particularly great option to run databases on? What makes it the best choice for Oracle Database environments?

- Oracle Linux is the development platform for [Oracle Database](#) (including [Oracle Exadata](#)), middleware, and applications. Oracle Linux serves as the foundation for Oracle Cloud, with Oracle Cloud Infrastructure running on Oracle Linux in [all cloud regions globally](#). Thus, Oracle Linux is tightly coupled with Oracle Database and application testing, which hardens software releases throughout each product's lifecycle.
- Integrated features and joint development help to optimize Oracle Linux for Oracle Database.
- **The OS standard for Oracle Database**. Oracle Linux is the base platform on which Oracle developers prove functionality, quality, and software viability. And before any database or application software is made available, Oracle engineering teams conduct formal stress tests on Oracle Linux to certify Oracle Database and Oracle Real Application Clusters (RAC), along with an extensive battery of system verification and performance tests.
    - **Optimized transaction performance and scale**. Oracle Database and Oracle Linux engineering teams collaborate continuously on improvements and optimizations to boost database application performance. For example, when traditional interprocess communication (IPC) mechanisms exhibited stability issues under heavy loads, Oracle engineers pioneered a new approach—Reliable Datagram Sockets (RDS), a low-latency connectionless protocol for delivering datagrams reliably to thousands of endpoints. Because RDS resulted in

fewer retransmissions (especially during times of peak processing), it greatly improved database performance on Linux. Oracle contributed the RDS code to the open source community and it is now part of the Linux kernel. Oracle Database engineers were subsequently able to simplify the database code, allowing Oracle Linux to do the "heavy lifting" for high-performance database communications.

- o **Database smart flash cache**. Since many OLTP workloads are read-intensive, Oracle Database engineers developed Database Smart Flash Cache, an innovative solution that allows Oracle Linux to accelerate I/Os for read-mostly database workloads and significantly improve response times.
- o **Advanced end-to-end data integrity solutions**. Oracle Database and Oracle Linux engineering teams have collaborated with third-party hardware vendors to develop data integrity solutions that prevent silent data corruption. Oracle engineers have helped to construct data integrity solutions that follow the T10 Protection Information (T10 PI) standard, performing integrity checking across the end-to-end data path—from the application to the operating system, through the switch and host bus adapter, and to the disk storage device itself.
- o Oracle Database Templates simplify and enable rapid Oracle Database deployments.
- For further details, read Why Oracle Database Runs Best on Oracle Linux.

What is Oracle Cloud Native Environment?

- Oracle Cloud Native Environment is software for configuring, deploying, updating, and upgrading infrastructure for running cloud native applications. It is based on open standards, specifications, and APIs defined by the Open Container Initiative and Cloud Native Computing Foundation (CNCF), including a CNCF-certified Kubernetes module, container runtimes, service mesh, storage, networking, observability, and diagnostics.
- Oracle Cloud Native Environment works in conjunction with Oracle Verrazzano Enterprise Container Platform, a container deployment and management solution, which provides a simplified application modernization, management, and observability stack. Oracle Verrazzano Enterprise Container Platform runs on top of Kubernetes, which makes it ideal to deploy with Oracle Cloud Native Environment, allowing container applications to be deployed on Kubernetes clusters, on-premises, or in the cloud.

Does Oracle Linux include support for KVM?

- Oracle Linux offers the Kernel-based Virtual Machine (KVM) hypervisor, which supports both x86-64 and aarch64 processor architectures.
- Oracle Linux Virtualization Manager, the server virtualization management platform, can be easily deployed to configure, monitor, and manage an Oracle Linux KVM environment on x86-64 servers with enterprise-grade performance and support from Oracle. Oracle Linux Virtualization Manager support is included in Oracle Linux Premier Support at no additional cost.

Can Oracle Linux KVM be used as hard partitioning technology for Oracle software licenses?

- Oracle Linux KVM may be used as hard partitioning technology only if specific cores are allocated per the following document: Hard Partitioning with Oracle Linux KVM.

What are the automation and management tools available for Oracle Linux?

- Oracle Linux Automation Manager and Engine are the latest additions to the Oracle Linux operating environment. Oracle Linux Automation Manager and Engine, based upon the open source AWX and Ansible projects respectively, are included with an Oracle Linux Premier Support subscription. Together, they provide a cost-effective, powerful, scalable, and secure infrastructure automation framework for enterprise environments. Additionally, they streamline software provisioning, configuration management, and application deployment, enabling infrastructure as code.
- To ease migrations from existing infrastructures, Oracle Linux also includes Oracle Linux Manager, which provides an effective set of tools for managing the Oracle Linux software lifecycle in small or large deployments. Oracle Linux Manager also helps automate a kickstart installation, system configuration, and maintenance tasks, which enables you to rapidly deploy proven and consistent software configurations for Oracle Linux systems. Oracle Linux Manager has been enhanced to support Oracle Linux 8 and 9 clients.
- Oracle Enterprise Manager provides a comprehensive monitoring and management solution for Oracle Database and Engineered Systems deployed in cloud and customer data centers. The base installation of Oracle Enterprise Manager is included with an Oracle Linux Support subscription at no additional cost.

- Customers with Oracle Linux and Microsoft Windows instances deployed in Oracle Cloud Infrastructure also have the option of using OS Management service, which provides tools to automate common operating system management tasks such as patch and package management, and security and compliance reporting for the OS instances deployed in Oracle Cloud.

What is DTrace for Oracle Linux?

- DTrace is a comprehensive dynamic tracing framework available to Oracle Linux customers. DTrace provides operational insights that allow users to tune and troubleshoot the operating system. With DTrace, Oracle Linux developers have a tool to analyze performance and increase observability into how their systems work. DTrace enables higher-quality application development and greater use of existing resources while helping reduce downtime and cost. Visit Oracle Linux Documentation to learn how to use DTrace on respective Oracle Linux releases.

What is Gluster Storage and is it included with Oracle Linux?

- Gluster provides a scalable, distributed file system that aggregates disk storage resources from multiple servers into a single global namespace. Gluster Storage is available for Oracle Linux 7 and Oracle Linux 8. It is included in Oracle Linux Premier Support at no additional cost.

What is the typical use case for Oracle Linux?

- Oracle Linux is widely used across industries and supports Oracle and non-Oracle workloads. Customers are increasingly moving traditional corporate systems (client/server or web-based) to cloud infrastructure. They are consolidating around four cloud infrastructure design points: on- or off-premises, and third-party or private infrastructure. Typical customer use cases are a combination of these four types of infrastructure, run by two or more cloud providers or alternatively a managed service provider, as well as running their own private cloud infrastructure.
- Customers want a single brand of OS with a large partner ecosystem across on-premises and popular clouds to give them maximum flexibility when choosing where to run their workloads.
- For a list of certified hardware with Oracle Linux, visit Hardware Certification List.
- For the ISV software certified on Oracle Linux, visit Oracle Linux and Virtualization ISV Catalog.

What are the benefits of embedding Oracle Linux in my solution?

- Choosing to embed Oracle Linux and Virtualization in your solutions can have a positive impact on your business. A few of the primary benefits you can expect to achieve include reducing cost of goods sold (COGS), expanding market access and footprint, and helping automate DevSecOps. Read the datasheet Embedding Oracle Linux and Virtualization to learn more.

ORACLE LINUX IN THE CLOUD

Can I run Oracle Linux in public clouds?

- Yes, customers can choose to run the same Oracle Linux on-premises and in the cloud. Oracle-built Oracle Linux images are available in Oracle Cloud Infrastructure, Microsoft Azure, and Amazon Web Services. This makes it easy to run Oracle Linux instances in the cloud.

Is Oracle Linux Support included with Oracle Cloud Infrastructure subscriptions?

- Yes, Oracle Linux Premier Support is included with Oracle Cloud Infrastructure subscriptions at no additional cost. This includes support for additional Oracle Linux features and tools that integrate with and enhance the experience on Oracle Cloud Infrastructure. Refer to the Oracle Linux for Oracle Cloud Infrastructure FAQ for more information on Oracle Linux support, licensing, deployment, and other resources for Oracle Cloud Infrastructure.

Is Oracle Linux the only supported Linux OS for SAP NetWeaver-based applications using Oracle Database in public clouds?

- Yes, Oracle and SAP have certified SAP NetWeaver-based applications using Oracle Database to run on Oracle Cloud Infrastructure, Microsoft Azure, and Amazon Web Services. Oracle Linux is the only supported Linux OS for these environments.

Can I use Oracle Linux yum server and/or the Unbreakable Linux Network when running Oracle Linux in public clouds?

- Yes, Oracle Linux yum server is publicly available and hosts many different types of software in repositories for which the configuration is installed and updated via release packages. Oracle Linux downloads are also available on Oracle Linux yum server in several forms such as ISO, Vagrant, container images, virtual machine templates, or Raspberry Pi images.
- In addition, customers with valid Oracle Linux support subscriptions can register and access the Unbreakable Linux Network to obtain Oracle Linux updates that may require support entitlements.

ORACLE LINUX SUPPORT OFFERINGS

Why does Oracle offer Linux support?

- Oracle is deeply committed to delivering the industry's best Linux support and advancing Linux technology. Oracle has a long-standing history of supporting standards-based computing to lower the cost of IT infrastructure for customers. Linux is the most popular and fastest growing operating system for Oracle software deployments, and as such, it is very important to our customers. Our customers demand the highest quality support when they deploy data center and cloud solutions using Oracle Linux.

How is it possible for Oracle to provide enterprise-quality support for Linux while lowering cost?

- For decades, Oracle has been supporting tens of thousands of Oracle Linux customers' enterprise systems in data centers around the world. Meanwhile, Oracle has one of the largest Linux engineering organizations in the world. This means our Linux support organization can take full advantage of the economies of scale of Oracle and pass along the cost savings to our customers.

What does Oracle deliver with its Linux support?

- The Oracle Linux Support Program delivers 24x7 support for Oracle Linux, Red Hat Enterprise Linux, and CentOS Linux. Technical support is provided by dedicated Linux support experts via My Oracle Support, the well-established support infrastructure for all Oracle products, and is backed by an industry-leading Linux engineering team.
- Oracle also provides:
  - Free installation binaries and errata for Oracle Linux
  - Comprehensive testing and optimization of Oracle Linux with third-party hardware, storage, networking, and drivers
  - Certification for the complete software stack including enterprise applications, middleware, database, Linux, and virtualization, along with servers and storage
  - Consulting services for installation, configuration, and software deployment on Oracle Linux

What levels of Linux support are available?

- Oracle offers two levels of Linux support.
  - **Basic**—24x7 global support, complete Linux server lifecycle management using Oracle Linux Manager or Oracle Enterprise Manager, Oracle Clusterware software, dynamic tracing with DTrace, comprehensive indemnification, and Oracle Container runtime for Docker.
  - **Premier**—24x7 global support, with all the features of Basic support plus
    - Ksplice for zero-downtime patching
    - Oracle Linux Automation Manager and Automation Engine
    - Oracle Linux Virtualization Manager for KVM management
    - CNCF-certified Kubernetes with Oracle Cloud Native Environment
    - Oracle Linux high availability services with Corosync and Pacemaker
    - Gluster Storage for Oracle Linux
    - Premier backports
    - Lifetime sustaining support

What is Oracle's support lifecycle for Oracle Linux?

- Customers rely on Oracle Linux to run many of their most important IT systems. As part of our commitment to long-term stable availability of the operating system, Oracle Linux Premier Support and Oracle Linux Basic Support for Oracle Linux Releases 5, 6, 7, 8, and 9 are available for 10 years from the release date of the Oracle Linux program. Support for an Oracle Linux program may be extended for additional years with Oracle Linux Extended Support, followed by Lifetime Sustaining Support. This is part of Oracle's unique Lifetime Support Policy that enables customers to move to new versions of software when they're ready. Refer to the Oracle Open Source Support Policies (PDF) and the Lifetime Support Policy: Coverage for Oracle Open Source Software (PDF) documents for details.

Does Oracle offer Extended Support?

- Yes. Oracle offers Extended Support for Oracle Linux releases when Premier Support ends. For more information on Extended Support, please review the Oracle Linux Extended Support datasheet.

Does Oracle still support Python 2 and OpenSSL 1.0.2 that have reached end-of-life by the community?

- Yes, both Python and OpenSSL are integral parts of Oracle Linux. Oracle Linux is an enterprise Linux distribution, and support decisions for components in the operating system are made independently from those made in the upstream community. For example, Python 2 and OpenSSL 1.0.2 shipped with Oracle Linux 7 and continue to be supported as part of the Oracle Linux 7 lifecycle, based on the Oracle Open Source Support Policies (PDF) and the Lifetime Support Policy: Coverage for Oracle Open Source Software (PDF).

How much do I pay for Linux support from Oracle?

- Oracle's pricing for Linux support is simple and flexible. Support pricing is calculated based on the Physical CPU Pair for the server deployment on-premises. Please see the Global Price List for further details.
- When pricing Oracle Linux in a cloud environment, please refer to the Oracle License Definitions and Rules Booklet.
- Oracle Linux Premier Support is included with Oracle Cloud Infrastructure subscriptions and Oracle Premier Support for Systems at no additional cost.

What does Oracle Clusterware software do? Is Oracle Clusterware software included with Oracle Linux Support?

- Oracle Clusterware provides a server failover capability that helps protect Oracle and non-Oracle applications. It can be a valuable component of a business continuity infrastructure for applications and databases managed in a cluster environment.
- Oracle Linux Support customers at the Basic and Premier support levels can download and deploy Oracle Clusterware with no additional license fee or support cost.

Does Oracle provide support for high availability solutions built with open source packages, including Corosync and Pacemaker?

- Yes. Beginning with Oracle Linux 7, Oracle Linux includes several open source packages, including Corosync and Pacemaker, to achieve high availability for applications and services. You may download Corosync, Pacemaker, and the functional sub packages from the Unbreakable Linux Network or the Oracle Linux yum server.

Does Oracle provide support for XFS?

- Beginning with Oracle Linux 7, XFS is the default file system and is included with Basic and Premier Support subscriptions at no additional charge.

Does Oracle provide support for Red Hat Global File System (GFS) or Red Hat Cluster Suite (RHCS)?

- Beginning with Red Hat Enterprise Linux 6, several features were separated into add-ons that require a separate purchase, such as the High Availability Add-On for clustering and the Resilient Storage Add-On for GFS2. Oracle Linux Support does not include support for these add-ons.
- However, Oracle Linux includes Oracle Cluster File System (OCFS2). Developed by Oracle, OCFS2 is a shared storage file system integrated into the Linux kernel (2.6.16 and higher) and released under the GNU General Public License.

ORACLE LINUX DOWNLOAD AND UPDATES

Where do I download Oracle Linux?

- Oracle Linux can be downloaded, used, and distributed free of charge and updates and errata are freely available, excluding certain updates and errata such as those released with Ksplice and Extended Support, which may require Oracle Linux Premier or Extended Support.
- ISO installation images are available from the Oracle Linux yum server and Oracle Software Delivery Cloud. Individual RPM packages are available on the Oracle Linux yum server and the Unbreakable Linux Network (ULN). Container images are available via Oracle Container Registry, GitHub Container Registry, and Docker Hub. Oracle Linux is also available on Microsoft Store to enable you to easily run Oracle Linux on your Windows desktop.
- There are additional Oracle Linux resources such as scripts to build Oracle Linux images, virtual machine templates, and Vagrant projects that can help you rapidly build and provision Oracle Linux instances for Oracle VM VirtualBox, KVM, Oracle Cloud, or other clouds.

How do I get updates for Oracle Linux?

- Oracle provides security updates and bug fixes (errata) for Oracle Linux for free from the Oracle Linux yum server.
- The Unbreakable Linux Network (ULN) is a comprehensive resource for Oracle Linux Support subscribers and offers access to Oracle Linux software packages. Oracle Ksplice and Extended Support patches require appropriate Oracle Linux Support subscriptions.
- To access ULN, a valid Customer Support Identifier (CSI) is required. To obtain a CSI, purchase Linux support from the Oracle Store or through your Oracle sales contact.

ORACLE'S COMMITMENT TO LINUX

How does Oracle work with the Linux community?

- Oracle is a platinum member of the Linux Foundation and the Cloud Native Computing Foundation, and one of the industry's largest contributors to open source.
- Oracle is committed to developing, supporting, and promoting Linux. Oracle has been a key contributor to the Linux community for many years. This includes major code contributions such as Oracle Cluster File System and the Btrfs file system, and much more. Oracle's Linux engineering team is a trusted part of the Linux community, and several Oracle employees are Linux mainline kernel maintainers. Oracle continues to contribute Linux-related innovations, modifications, fixes, and documentation directly to the Linux community. We strive to set the standard for collaboration.
- Oracle also puts tremendous effort into testing Linux to run well in enterprises. Oracle's Linux test lab uses many test kits that are based on real customer workloads to test and stress Linux for performance, scalability, reliability, and security. The results of these testing efforts make their way into the Linux kernel as bug fixes and new enhancements, thereby making Linux better for all customers.
- Learn more about Oracle's work with the Linux community available on GitHub:
    - Oracle Linux on GitHub
    - UEK source on GitHub
    - DTrace on GitHub
    - Switch from CentOS Linux to Oracle Linux
    - Ansible Collections for use with Oracle Linux Automation Manager
    - Vagrant projects

What are some examples of Oracle's contributions to Linux and the open source community over the years?

- Oracle has a long history of strong support and commitment to Linux, starting with the release of the first commercial relational database on Linux in 1998. Oracle's focus is on enhancing and extending the enterprise-class capabilities of Linux. Oracle continues to strengthen its involvement in the Linux community by providing enhancements that facilitate the development and deployment of enterprise Linux solutions. By developing enhanced capabilities and contributing code, Oracle's Linux engineering teams continue to make the Linux experience better for our customers and for Linux users at large.
- Oracle developers have contributed thousands of lines of code to the Linux kernel. If you're running a Linux system, chances are you're running a filesystem that was either created at Oracle (btrfs) or is currently maintained by Oracle (xfs, nfsd).

- As maintainers of the Linux SCSI stack, Oracle developers are responsible for reviewing any patches which influence the storage stack, as well as taking a leading role in the integration of NVMe and other technologies.
- As the maintainer of the Linux XFS filesystem, Oracle developers are responsible for setting the roadmap (and doing the work) for new filesystem features like online fsck and online filesystem repair.
- With the release of Linux kernel version 6.1, Oracle was the #1 developer (by lines of code changed). Oracle is consistently a top-three Linux developer when looking at the "core" areas of the kernel.
- As the upstream maintainers of GRUB2, Oracle developers took the lead on both the disclosure coordination and the technical solutions for the "BootHole" security vulnerability in the GRUB2 bootloader. GRUB2 is the most popular bootloader for Linux and other OSs. Oracle developers analyzed the GRUB2 "BootHole" impact, coordinated the cross-vendor industry response, and helped ensure swift delivery of a fix. For details, read the blog An inside look at CVE-2020-10713, a.k.a. the GRUB2 "BootHole".
- QEMU is the backbone of virtualization for Linux, and Oracle developers are making significant contributions to improve and influence the roadmap for QEMU. Oracle developers have led the effort to implement multiprocess QEMU to run emulated devices in separate processes for isolation, helping to ensure that control plane and data plane processes are fully isolated. Separate processes can have tighter security policies to help reduce the attack surface, when compared to a monolithic QEMU process. If an emulated device is compromised, it's more difficult to do damage to the host from a more confined process. For details, read the blog Multiprocess QEMU: Breaking up is hard to do.
- Oracle contributes to and maintains many open source projects beyond the Linux kernel. Visit oss.oracle.com to learn the details of open source projects at Oracle.

PARTNER ECOSYSTEM

Where can I find details about certified hardware for Oracle Linux?

- The Oracle Linux and Virtualization Hardware Certification Program (HCL Program) enables hardware partners, which are generally Independent Hardware Vendors (IHVs) and resellers with membership in the Oracle PartnerNetwork License & Hardware Track, to qualify their hardware for Oracle Linux and Virtualization environments using an Oracle supplied hardware test kit.
- The output of this program is the Hardware Certification List (HCL). This list documents servers certified for Oracle Linux with the Unbreakable Enterprise Kernel (UEK). Through this qualification, Oracle and its hardware partners can help ensure that both parties are equipped to provide collaborative support to customers running Oracle Linux and Virtualization environments.
- Read more about certified hardware for Oracle Linux on Hardware Certification List (HCL).

Are third-party applications supported on Oracle Linux?

- Thousands of leading independent software vendors certify their products with Oracle Linux. ISV applications certified with Red Hat Enterprise Linux work out-of-the-box with Oracle Linux because Oracle Linux is application binary compatible with Red Hat Enterprise Linux. Applications certified on Oracle Linux run wherever Oracle Linux runs—on Oracle Cloud Infrastructure (OCI) and other cloud and on-premises environments such as Oracle Private Cloud Appliance. Also, Oracle has strategic development and support partnerships with key industry vendors that run on Linux. Learn how to certify hardware and applications on Oracle Linux.

SWITCHING TO ORACLE LINUX

Is Oracle Linux compatible with Red Hat Enterprise Linux?

- Yes, Oracle Linux is 100% application binary compatible with Red Hat Enterprise Linux. There have been no reported compatibility issues with Red Hat Enterprise Linux since Oracle Linux was introduced in 2006.

How does Oracle provide support for Red Hat Enterprise Linux (RHEL) or CentOS Linux installations?

- Oracle Linux support subscriptions can be used to support a customer's existing RHEL or CentOS Linux installations. For CentOS installations, Oracle only supports systems that are based on CentOS Linux, not CentOS Stream. Support is limited to the packages and versions provided on the Oracle Linux installation media and the topics identified in the Scope of Coverage document. All security and bug fix errata will be Oracle Linux binaries. However, these binaries are fully compatible and work without any reinstallation or other coding changes.

How do I obtain Oracle Linux software updates for RHEL and CentOS Linux?

- There is no need to reinstall the existing operating system such as RHEL or CentOS Linux to obtain Oracle Linux software updates. You simply register for an account with the Unbreakable Linux Network (ULN) using a valid customer support identifier (CSI), then download and install registration software and use it to register your server. Once you have completed these steps, you may use yum or update to download and install updates from ULN. The Getting Started – How to Connect to Oracle Linux Yum Server document provides information on how to connect to the Oracle Linux yum server and obtain software updates via yum for Oracle Linux and compatible Linux distributions such as Red Hat Enterprise Linux (RHEL) or CentOS Linux.

What are my Red Hat Support obligations with my existing Red Hat contract?

- Customers should check their Red Hat contract to determine their Red Hat support obligations. Oracle recommends using Oracle Linux consulting services to assist with the transition.

How do I get more information about Oracle Linux?

- Oracle offers free and comprehensive resources such as documentation, learning paths, tutorials, hands-on labs, and videos to help you develop your applications on Oracle Linux and get the best value from your Oracle Linux deployments.
- To purchase Oracle Linux support, visit shop.oracle.com or contact your Oracle sales representative.
- To ask questions about Oracle Linux, visit the discussion forums at GitHub, My Oracle Support Linux community, or Cloud Customer Connect Linux community.
- Learn more at oracle.com/linux.

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